

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE Prevention, Preparedness and Response Program

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March 14, 2017

Mr. David Wilkins Senior Vice President, Hilcorp Alaska 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503

Re: Hilcorp Middle Ground Shoal Natural Gas Pipeline Leak Sampling and Monitoring Plan

Dear Mr. Wilkins:

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Thank you for providing subject sampling and monitoring plan, at the department's request. In an effort to reduce procurement, mobilization and equipment outfitting timelines please accept this letter as general, preliminary initial approval to commence the sampling and monitoring plan as described. The department understands that Hilcorp's plan proposes a phased, on-going process and some aspects of monitoring have been conducted; other portions of the program will take longer to implement. With that said, the department is also informing you that the specifics of your plan are still being evaluated by a host of government agencies and technical experts, and department may ask for modifications, clarification or operational changes in the future and/or as a result of the sampling/monitoring results.

The department would never require or even suggest that Hilcorp undermine its own safety management system, or compromise worker safety. With that in mind, there are several elements to this plan that could be strengthened to improve operational efficiency and data quality. First, the department understands that the 1000 yard minimum distance requirement for the water quality and air/water interface sampling plans is the result of contracted instrument technician insurance limitations. We also understand that this limitation was put into place as a result of the Coast Guard's Broadcast Notice to Mariners. The Coast Guard Captain of the Port advises that the broadcast is advisory only and does not constitute an exclusion or "restriction" zone. As such, since most of the data associated with these two sampling programs can be down-loaded at the end of the day, consideration should be given to not having technicians embarked on the deploying/recovering vessel, in order to more closely approach and characterize the leak site, within safety margins, of course, and to limit sensor drift.

It also the understanding of the department that the M/V RESOLUTION, is limited to operations in 7/10s ice concentration or less. We also understand the desire to limit vessel operations to wind conditions below 15 knots sustained and sea heights less than 3 feet. Given the factors involved such as: the vessel design, the back-deck buoy deployment/recovery evolution, crane positioning and limitations and the fact that this activity is a non-routine one for the deck crew, department thinks these operating limits are both prudent and necessary.

The department continues to acknowledge the importance of the on-going, phased approach of the sampling plan. Understanding that the water quality and air/water interface sampling programs are the least tolerant to sampling frequency change, these are also two very important sampling efforts to government agencies. As such, some change to the sampling frequency may be necessary depending on the quantity and quality of the sampling data results. The department will continue to work with Hilcorp staff to address any changes and to understand associated impacts. Additionally, the department would like to see the following changes to the Sampling and Monitoring Program, as outlined in Table 1 of the Plan:

- Fish and Wildlife Monitoring Monitoring should continue for two weeks after the temporary repair to the pipeline
- Acoustic monitoring Department would like two noise characterizations; one during 6-7/10s ice
 concentration and the other during ice-free (0/10s) conditions. In this way comparison can be
 made between potential impacts from the gas release versus background noise associated with
 drifting ice.

As communicated previously, this sampling and monitoring effort is centered on identifying environmental risk from the leaking Middle Ground Shoal natural gas pipeline to better inform future decision making. The department has received numerous requests for both the plan itself and details of the sampling and monitoring program. Given the construct of State of Alaska records availability and access, you should have little expectation that the data collected will be kept private. As previously agreed, please provide me the sampling and monitoring results as they become available. The department appreciates Hilcorp's cooperation and support in conducting monitoring programs to date. Should you or your staff have questions or would like to discuss further, please contact me at (907) 269-7682 or via e-mail at Geoff.Merrell@alaska.gov. Thank you for your attention to this matter.

Sincerely,

Geoff Merrell

State On-Scene Coordinator

Central Alaska Region

Electronic cc: CAPT Paul Albertson, USCG

Tom Johnson, PHMSA Mike Solter, ADEC - DW